THE FOLLOWING ARE THE ENGLISH TRANSLATION OF ANNEXES TO THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT (ARTICLE 34):

Amended Sheet (Page 8)

We claim:-

 A process for the preparation of polyisobutene containing at least 75 mol% of terminal vinylidene groups, in which isobutene or an isobutene-containing hydrocarbon mixture is polymerized in the liquid phase in the presence of a boron trifluoride complex catalyst having the composition

10 $a(BF_3) : b(Co1) : c(Co2)$

where

- 15 Col is at least one tertiary alcohol,
 - Co2 is at least one compound selected from water, primary alcohols, secondary alcohols, dialkyl ethers, alkanecarboxylic acids and phenols,

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- the ratio c:b is from 0.9 to 1.8 and
- the ratio (b+c):a is from 0.9 to 3.0.
- 25 2. A process as claimed in claim 1, Col being tert-butanol.
 - 3. A process as claimed in claim 1 or 2, Co2 being methanol, ethanol, 2-propanol or 2-butanol.
- 30 4. A process as claimed in claim 1 or 2, Co2 being a dialkyl ether, in which at least one alkyl radical is a secondary or tertiary alkyl radical.
- 5. A process as claimed in any of the preceding claims for the preparation of polyisobutenes having a number average molecular weight M_n of from 500 to 50 000 Dalton.

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